User Guide

Speakers

SF 26X

SpeedMount® Ceiling Mount Speakers

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

68-2222-01 Rev. A
12 13

Safety Instructions

Safety Instructions • English

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Korean

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The following notifications are used in this guide:

CAUTION: A caution indicates a situation that **may** result in minor injury.

WARNING: A warning indicates a situation that has the **potential** to result in death or severe injury.

ATTENTION: Attention indicates a situation that may damage or destroy the product or associated equipment.

NOTE: A note draws attention to important information.

Specifications Availability

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Introduction

This user guide contains information about the Extron SF 26X Ceiling Mount Speaker.

About the SF 26X Speaker

The SF 26X speaker is a two-way, low impedance, ceiling-mount speaker system that features an 8 ohm open back speaker with a 6.5 inch woofer and a 3/4 inch tweeter designed for use in non-plenum airspace environments.

Features

- **Open back, infinite baffle design**
- **8 ohm nominal impedance**
- **3/4" (1.9 cm) pivoting ferrofluid-cooled dome tweeter**
- **6.5" (16.5 cm) polypropylene woofer**
- **Frequency range: 50 Hz to 20 kHz**
- **25 watts continuous pink noise, 50 watts continuous program**
- **110° conical dispersion**
- **Internal driver overload protection**
- **Thin bezel and magnetically attached grille**
- **Spring-loaded locking arms for quick ceiling installation**
- **Optional Ceiling Mount Kit available for use with ceiling tiles, includes C-rings and V-rails**
- **Four pole captive screw connector simplifies parallel speaker wiring**
- **Grille and bezel are available in white only and may be painted to match the environment**
- **5-year parts and labor warranty**

Application Example

The illustration below is one example of configuring a system using the SF 26X speakers.

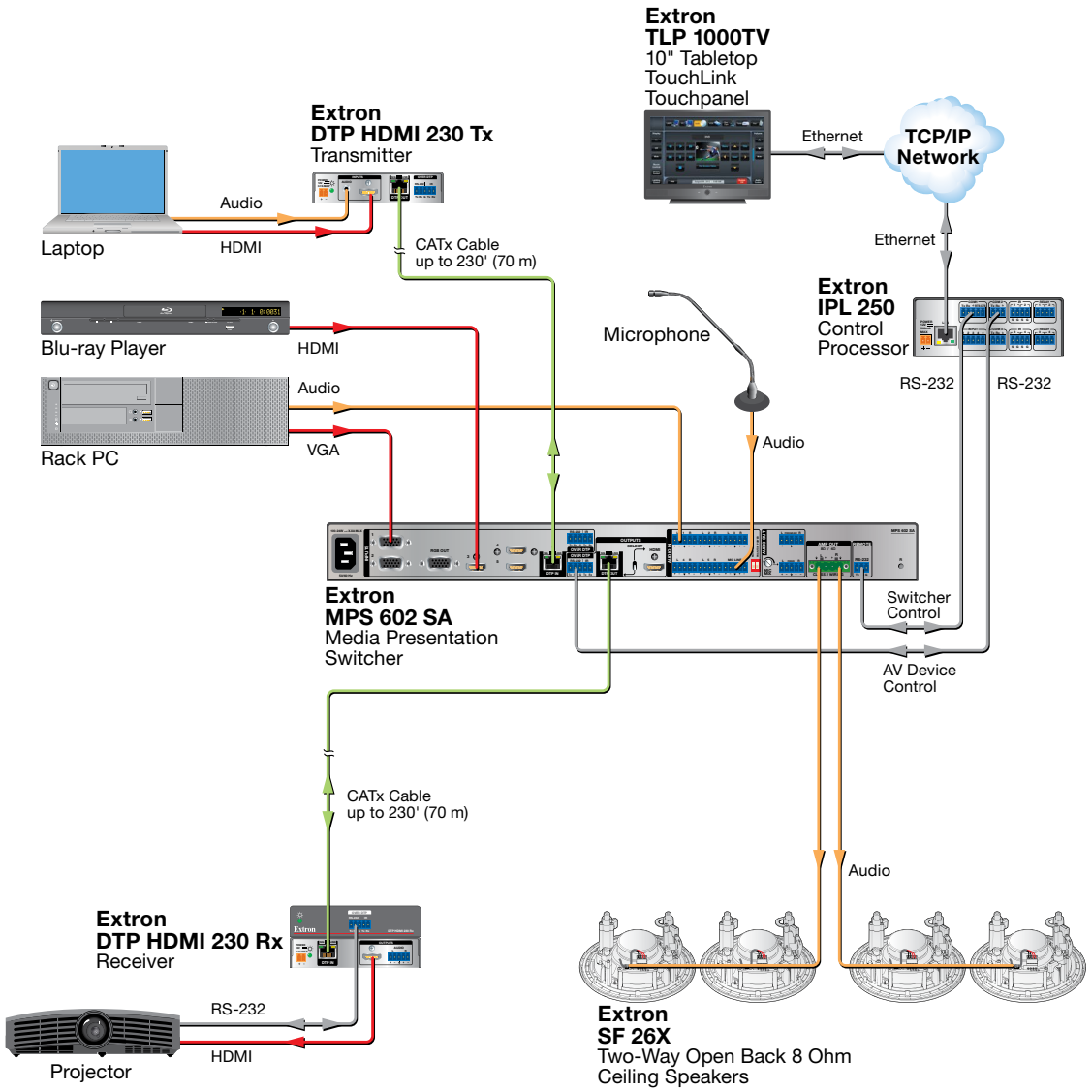


Figure 1. SF 26X Application Example

Installation

The Installation section describes:

- **Installing the SF 26X in a Suspended Ceiling**
- **Painting the Baffle and Grille**

Installing the SF 26X in a Suspended Ceiling

1. Remove power from all devices.

   NOTE: If the baffle or grille is to be painted, see the **Painting the Baffle and Grille** section on page 12.

   The maximum ceiling tile thickness that the speaker can go into is 1.22 inches (31 mm).

2. Cut a hole for the SF 26X. Use the provided cutout template to outline the hole to be cut in the ceiling tile, as described below.

   a. Remove the ceiling tile and use the provided cutout template to outline the hole to be cut in the tile.

      NOTE: If the baffle and grille will be painted, save the cutout template as a paint shield.

   b. Cut out the circle traced in the ceiling tile.

   c. Replace the ceiling tile into the ceiling.

3. Install the optional SF 26X ceiling mount kit.

   a. Attach two V-rails and one C-ring across the tile above the hole cut in step 2 above.

   b. See the illustration below.

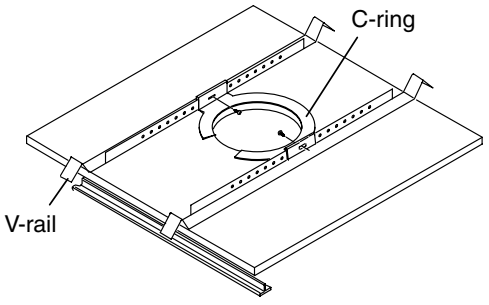


Figure 2. Installing the V-rails and C-ring

4. Route the speaker wires through the ceiling tile hole.
5. Remove the grille carefully from the SF 26X.

   NOTE: Grille hooks are provided for grille removal, if needed.

6. Attach speaker wires from the ceiling tile hole to the included four-pole captive screw connector using one of the following three methods below.

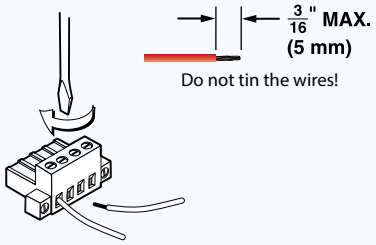
NOTES:

- Be sure that the combined impedance of the speaker system does not equal a value less than the rated minimum load impedance of the amplifier.
- The maximum number of wires per terminal are as follows:

Wire Gauge Table

Number of Wires per Connection Point	Maximum Wire Gauge
1	12 AWG
2	16 AWG

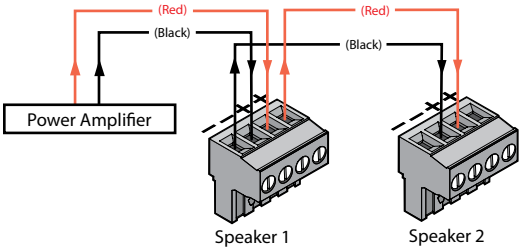
- Do not tin the wires. Tinned wires do not hold tight in the captive screws and can break easily after several bends.
- Strip no more than 3/16" (5 mm) of insulation from the end of the wire before inserting it into the captive screw connector.



- **Wiring Multiple Speakers Using Loop-through:**
  A loop-through electrical connection is made on the crossover board of the SF 26X. Connect the wires to the captive screw connectors of the speakers, as shown below. Be sure to tighten the screws.

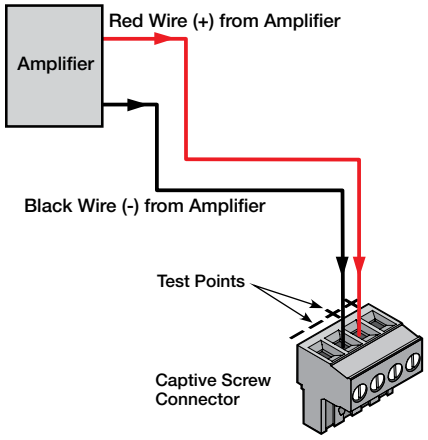
NOTES:

- Be sure that the combined impedance of the speaker system does not equal a value less than the rated minimum load impedance of the amplifier.
- When a chain of speakers is wired in this configuration, disconnecting one speaker removes power from the remaining speaker in the chain.



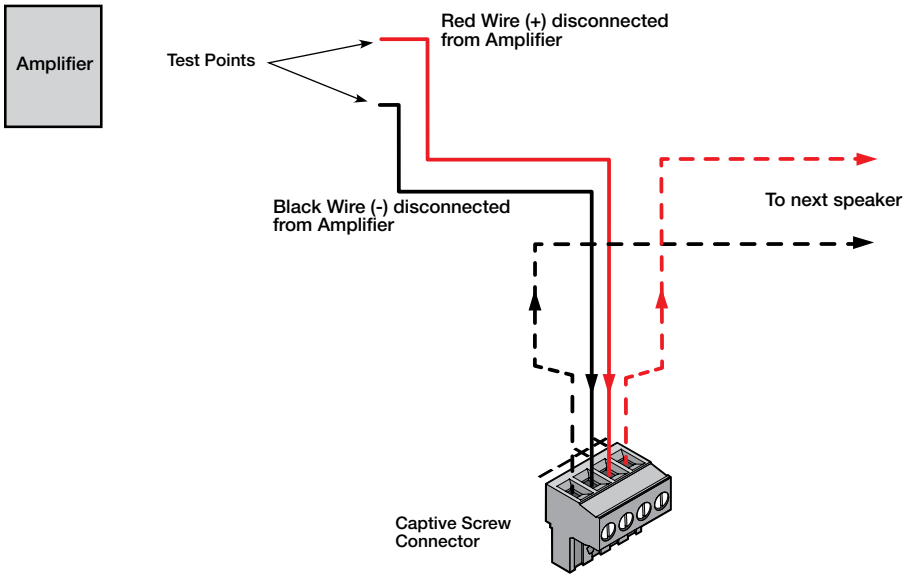
This configuration is useful for troubleshooting in four ways:

- The system is sectioned for easier troubleshooting.
- The source signal can be tested by connecting to the inner + (IN) and inner – (IN) terminals of the captive screw connector, as shown below.



Signal Test Points

- To test the impedance of the entire speaker system, **first** disconnect the speaker wires from the amplifier and then measure the impedance from the disconnected wires, as shown below.

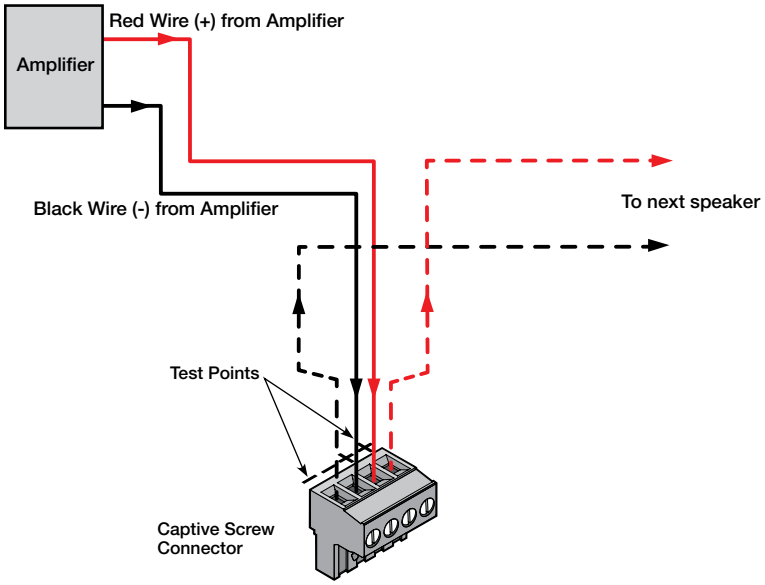


Impedance Test Points

ATTENTION: Disconnect the speaker system from the amplifier **before** performing this test, otherwise you may damage the test meter.

- The impedance of the speaker downstream of the one being tested can be measured while the system is powered on by **first** disconnecting the captive screw connector from the speaker being tested and then connecting the test probes to the outer (LOOP) terminals of the connector, as shown below.

ATTENTION: Be certain to **first** disconnect the captive screw connector from the speaker being tested and test the outer (LOOP) terminals, otherwise you may damage the test meter.

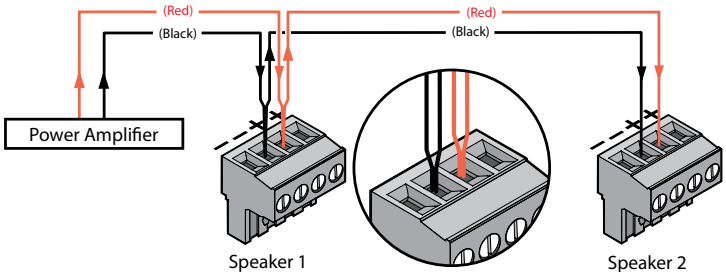


Impedance Test Points

- **Wiring Speakers in Parallel:**
  Connect the wires to the captive screw connectors of the speakers, as shown below. Be sure to tighten the screws.

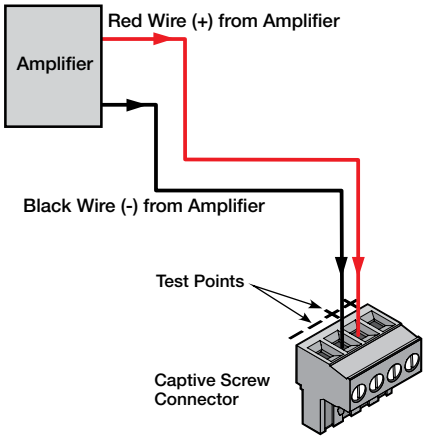
  NOTES:

  - Be sure that the combined impedance of the speaker system does not equal a value less than the rated minimum load impedance of the amplifier.
  - When a chain of speakers is wired in this configuration, disconnecting one speaker does not remove power from the remaining speaker in the chain.



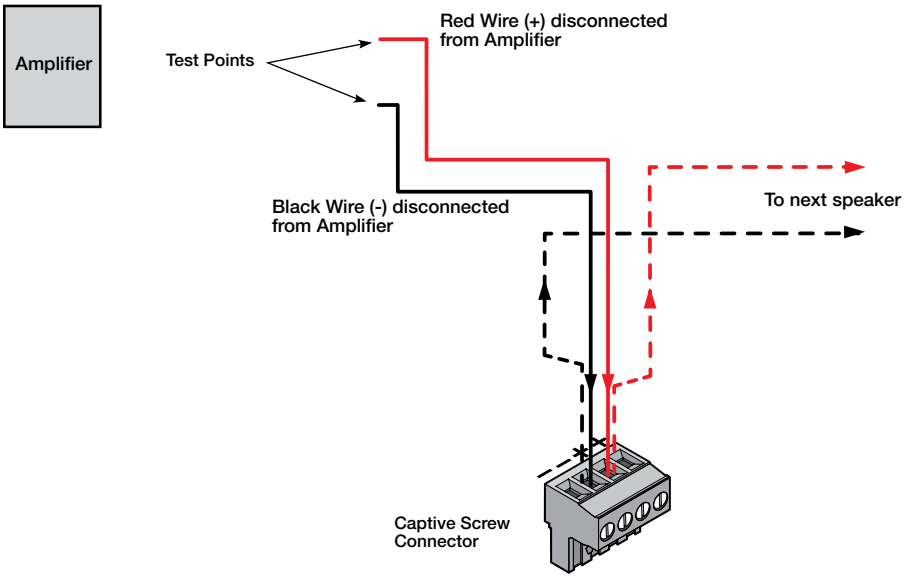
This configuration is especially useful in installations where the system can never be completely down, such as in a hospital setting.

The source signal can be tested by connecting to the inner + (IN) and inner – (IN) terminals of the captive screw connector, as shown below.



Signal Test Points

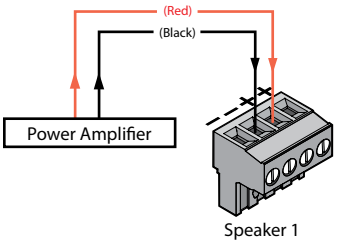
To test the impedance of the entire speaker system, **first** disconnect the speaker wires from the amplifier and then measure the impedance from the disconnected wires, as shown below.



Impedance Test Points

ATTENTION: Disconnect the speaker system from the amplifier **before** performing this test, otherwise you may damage the test meter.

- **Wiring a Single Speaker:**
  Connect the wires to the captive screw connector of the speaker, as shown below. Be sure to tighten the screws.



7. Insert the captive screw connector into the four-pole receptacle on the speaker crossover board as shown below.

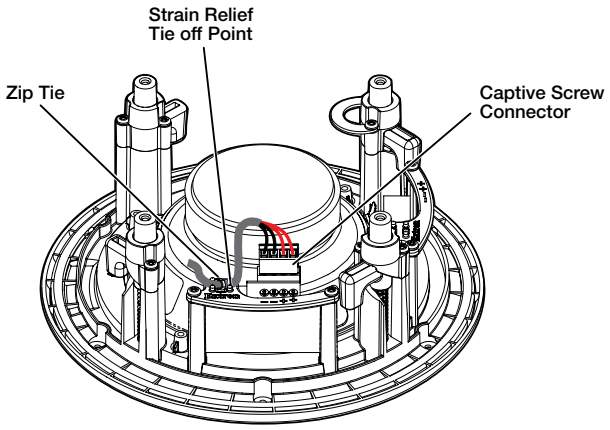


Figure 3. Strain Relief Tie Off Point

8. Secure the speaker wire to the strain relief tie off point using the included zip tie as shown above.

9. Mount the SF 26X.
   a. Insert the SF 26X through the bottom of the hole in the ceiling tile that was cut in step 2.
   b. Tighten the four screws (clockwise) of the locking arms until the arms are fully engaged and the speaker is securely clamped to the ceiling, as shown below.

ATTENTION: Do not overtighten the screws.

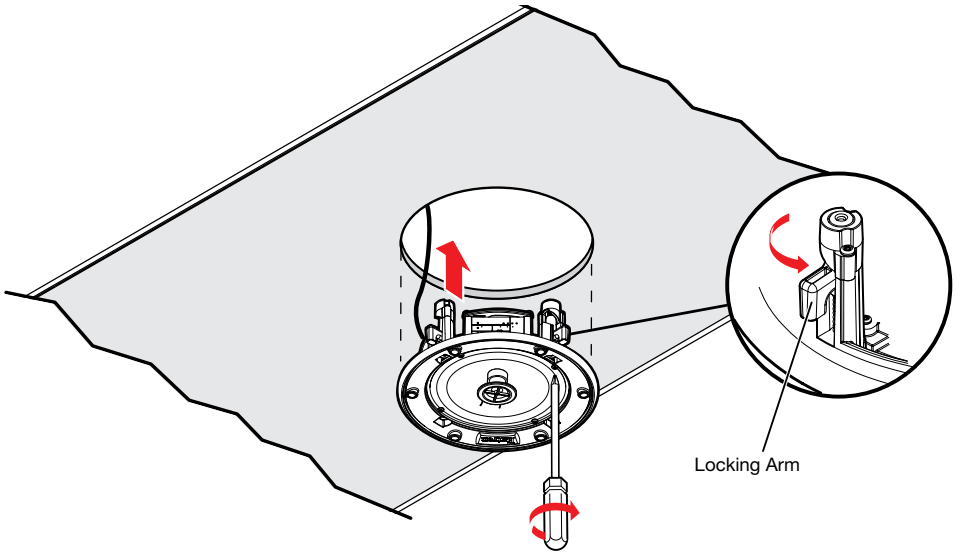


Figure 4. Mounting the Speaker Using the Four Locking Arms

10. Attach the secondary support line if required, as shown below.

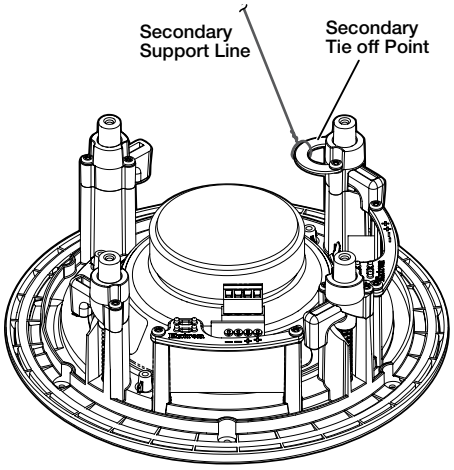


Figure 5. Attaching the Secondary Support Line

a. Remove the ceiling tile adjacent to the tile where the speaker is mounted.

b. Attach the secondary support line.

> **ATTENTION:** Do not allow any slack in the secondary support line.

c. Replace the adjacent ceiling tile.

11. Pivot the tweeter to aim the mid and high frequencies to the desired spot, as shown below.

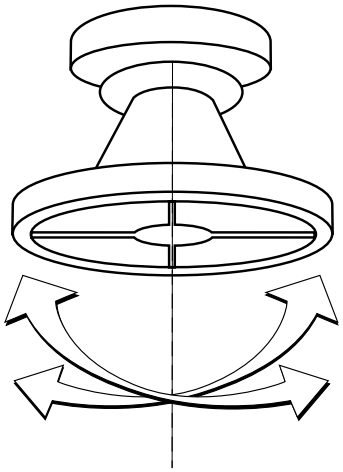


Figure 6. Pivoting the Tweeter

> **ATTENTION:** The tweeter can be pivoted only. Do not attempt to rotate the tweeter.

12. Position the outer perimeter of the grille into the groove of the speaker baffle. Six magnets pull the grille securely into place, as shown below.

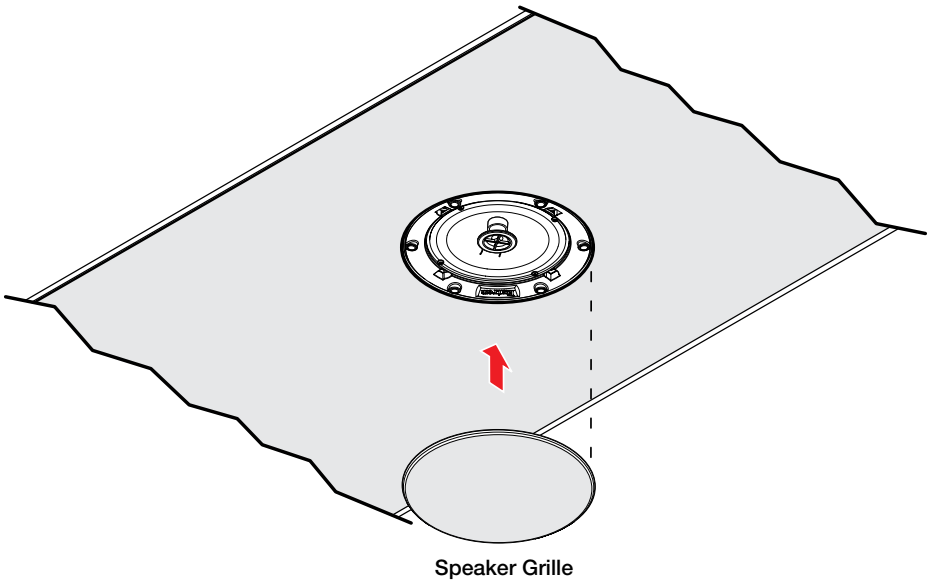


Figure 7. Installing the SF 26X Grille

NOTE: Grille hooks are provided for removal of the grille after installation.

Painting the Baffle and Grille

NOTE: The cutout template that was used in step 2 of the previous section will be used as a paint shield when painting the outer circumference of the baffle.

Painting the Baffle

1. Remove the grille using the provided grille hooks and set the grille aside.
2. Place cutout template over the center of the tweeter so that the woofer and tweeter of the speaker are protected from the paint.
3. Tape over the center hole of the template to prevent any paint from entering the hole.
4. Tape over any exposed portion of the baffle that is normally covered by the grille. This includes the perimeter outside of the template where the grille magnets are located.

   ATTENTION: Do not allow paint to touch the magnets, otherwise the grille installation will not be as secure. Do not allow paint to enter the baffle groove where the grille will reside, otherwise the grille may not contact the magnets properly for a secure fit.

5. Clean the outer perimeter of the baffle to be painted with a damp cloth.
6. Paint the outer baffle.

Painting the Grille

1. With the grille detached from the speaker, carefully remove the scrim from the inner side of the grille.
2. Carefully remove the Extron logo from the front of the grille.
3. Clean the outside of the grille surface with a damp cloth.
4. Carefully spray paint the outside surface of the grille.

   ATTENTION: Be sure to keep the paint from clogging the grille perforations, otherwise the speaker output will be affected.

5. After the paint has completely dried, reattach the logo and scrim.

Extron Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of five years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

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Extron Electronics
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Anaheim, CA 92805
U.S.A.

Japan:
Extron Electronics, Japan
Kyodo Building, 16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan

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Hanzeboulevard 10
3825 PH Amersfoort
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Extron China
686 Ronghua Road
Songjiang District
Shanghai 201611
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NOTE: If a product is defective, please call Extron and ask for an Application Engineer to receive an RA (Return Authorization) number. This will begin the repair process.

USA: 714.491.1500 or 800.633.9876 **Europe:** 31.33.453.4040
Asia: 65.6383.4400 **Japan:** 81.3.3511.7655

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

Extron Headquarters	Extron Europe	Extron Asia	Extron Japan	Extron China	Extron Middle East	Extron Korea	Extron India
+1.800.633.9876 (Inside USA/Canada Only) Extron USA - West +1.714.491.1500 +1.714.491.1517 FAX Extron USA - East +1.919.850.1000 +1.919.850.1001 FAX	+800.3987.6673 (Inside Europe Only) +31.33.453.4040 +31.33.453.4050 FAX	+65.6383.4400 +65.6383.4664 FAX	+81.3.3511.7655 +81.3.3511.7656 FAX	+86.21.3760.1568 +86.21.3760.1566 FAX	+971.4.299.1800 +971.4.299.1880 FAX	+82.2.3444.1571 +82.2.3444.1575 FAX	1800.3070.3777 (Inside India Only) +91.80.3055.3777 +91.80.3055.3737 FAX

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